REMARKS

These remarks are in response to the Final Office Action mailed May 6, 2008. Claims 1 and 30 have been amended. Support for the amendment can be found in the claims as previously pending and, for example, at paragraph [0066]. For example, it was inherent in "contacting an isolated polynucleotide comprising a desired sequence to be recombined with proteins the promote chromatin formation to generate a nucleosomal polynucleotide comprising histones" (as set forth in previous claim 1 and 30) that the polynucleotide being contacted with proteins to form a nucleosomal polynucleotide was removed from its natural environment prior to contacting with the proteins. Furthermore, the specification sets forth that the nucleosomal polynucleotide is an "exogenous" nucleosomal polynucleotide (see, *e.g.*, paragraph [0006]). Applicants submit that the amendment merely clarify what was previously searched (*i.e.*, see page 4, "Claim interpretation"). Thus, no new matter is believed to have been introduced and no matter has been provided which would require an additional search.

I. REJECTION UNDER 35 U.S.C. §112, FIRST PARAGRAPH

Claim 5 stands rejected under 35 U.S.C. §112, first paragraph as allegedly failing to comply with the written description requirement. The Examiner alleges that the term "recombinant recombinase" is not supported by the specification as filed. Applicants respectfully traverse this rejection.

Support for various recombinant recombinases can be found throughout the specification as filed. The disclosure contemplated and described the use of recombinant recombinases in the methods and compositions of the disclosure. For example, paragraph [0063] recites "isolated, recombinantly produced Drosophila Rad51 and Rad54" (*i.e.*, recombinantly produced recombinases). Accordingly, Applicants respectfully request withdrawal of the rejection.

II. REJECTION UNDER 35 U.S.C. §102

Claims 1, 10, 13, 15, 17, 19, 21 and 30-33 stand rejected under §102 as allegedly anticipated by Wiesmuller *et al.* Applicants respectfully traverse this rejection.

In order for a claim to be anticipated the cited reference must teach each and every element of the claim. Wiesmuller *et al.* do not teach or suggest contacting a relaxed polynucleotide in vitro with proteins to promote chromatin formation (*i.e.*, an exogenous nucleosomal polynucleotide). Wiesmuller *et al.* teach only that when SV40 is delivered to a cell is associated with histone *endogenously*. (see, *e.g.*, the characterization of the reference as set forth by the Office at page 2 of the Final Office Action).

Furthermore, the specification (and which the Office agrees at page 4) state that a nucleosomal polynucleotide is a polynucleotide associated with histone core proteins, or histone-like core proteins to form a chromatin structure. Furthermore that an "exogenous" nucleosomal polynucleotide (*i.e.*, one that has histone/histone-like proteins associated with a polynucleotide) is "transferred" into a target cell. In contrast, Wiesmuller *et al.* teach that after transfer into a target cell the SV40 polynucleotide become associated with histones. Polisky *et al.* confirms this at paragraph 2 page 2895, "Therefore, the viral DNA interacts with host histone in the nuclear milieu. . . ." Polisky *et al.* teach and suggest only that histone associated with SV40 as part of the viral replication process *within an infected cell*.

Kannar *et al.* do not remedy the deficiencies above. Rather Kannar *et al.* support the position that histone associated with SV40 *within an infected cell* (*i.e.*, endogenously) and thus are not generated exogenous to a cell.

Thus, Wiesmuller *et al.* as allegedly supported by Polisky *et al.* or Kannar *et al.* fail to teach or suggest each and every element of Applicants' independent claims 1 and 30. Accordingly, Applicants respectfully request withdrawal of the rejection.

Claims 1, 5, 8, 10, 13, 16, 17 and 30-33 stand rejected under 35 U.S.C. §102(b) as allegedly anticipated by Datta *et al.* as evidenced by Polisky *et al.* Applicants respectfully traverse this rejection.

Applicants submit that Datta *et al.* is cumulative to Wiesmuller *et al.* above in that it teach and suggest only that histone association with SV40 requires the milieu of the nucleus of a cell. Datta *et al.* do not teach or suggest forming an "exogenous" nucleosomal polynucleotide and delivery such an exogenously produced nucleosomal polynucleotide to a cell.

Accordingly, for at least these reasons Applicants submit that Datta et al and evidenced by Polisky *et al.* fail to set for a proper grounds for rejection under §102. Applicants respectfully request withdrawal of the rejection.

For at least the foregoing, the Applicant submits that the claimed invention is patentable and request reconsideration and notice of such allowable subject matter.

The Director is authorized to charge any required fee or credit any overpayment to Deposit Account Number 50-4586, please reference the attorney docket number above.

The Examiner is invited to contact the undersigned at the below-listed telephone number, if it is believed that prosecution of this application may be assisted thereby.

Respectfully submitted,

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